

Application No. 10/672,689
Amdt. dated June 17, 2005
Reply to Office action of May 17, 2005

Amendment to the Claims:

This listing of claims will replace all prior versions, and listings, of claims in the application.

Listing of Claims:

Claim 1 (original) A method for preparing a native, cell-free tissue replacement comprising the steps of: soaking the tissue replacement for at least six hours in a solution comprising one or more sulfobetaines; washing the tissue replacement in one or more solutions of a buffered salt;

extracting the tissue replacement in a mixture of one or more sulfobetaines with an anionic surface-active detergent; and washing the tissue replacement in one or more solutions of a buffered salt to remove the excess anionic surface-active detergent.

Claim 2 (original) The method of claim 1, wherein the tissue replacement further comprises the step of storing in a buffered salt solution until needed.

Claim 3 (original) The method of claim 1, wherein the sulfobetaines have hydrophilic tails of 10 to 16 carbons.

Claim 4 (Currently amended) The method of claim 1, further comprising the step of:

adhering one or more components to the tissue replacement before storing, wherein the components are ~~selected from the group consisting of a cell, a polymer, a bioactive agent, and combinations thereof.~~

Claim 5 (withdrawn) The method of claim 4, wherein the cell is selected from the group consisting of bone, cartilage, dermal, muscular, thyroidal, parathyroidal, lymphoid, pancreatic, urinary, digestive, hepatic, biliary, vascular, nervous, reproductive and combinations thereof.

Claim 6 (withdrawn) The method of claim 4, wherein the cells are obtained from a donor, a host, from cell culture from a donor or a host, or cell cultures of established cells, tissue cells, or transformed cell lines.

Claim 7 (Currently amended) The method of claim 4, wherein the bioactive compound comprises is ~~selected from the group consisting of a drug, protein, peptide, polysaccharide, fatty acid, nucleic acid, oligonucleotide, detectable agent, organic molecules, inorganic molecules or salts and combinations thereof that include natural or synthetic analogs, derivatives, or mimetic versions of the bioactive compound for therapeutic, prophylactic and diagnostic purposes.~~

Claim 8 (withdrawn) The method of claim 4, wherein the polymer is selected from the group consisting of naturally occurring, synthetically-derived, covalently crosslinkable, ionically crosslinkable,

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hydrophilic, and combinations thereof.

Claim 9 (original) The method of claim 1, wherein the tissue replacement is further modified into a structure selected from the group consisting of a suture, tube, sheet, film, scaffold, valve, limb replacement, tissue transplant, and joint for delivery into the body.

Claim 10 (original) The method of claim 1, wherein the sulfobetaine comprises SB-16.

Claim 11 (original) The method of claim 1, wherein the anionic surface-active detergent comprises Triton X-200.

Claim 12 (original) The method of claim 1, wherein the step of washing the tissue replacement comprises serial solutions of a buffered salt comprises three serial washes of 100 mM sodium and 50 mM phosphate for about 15 minutes each.

Claim 13 (original) The method of claim 1, wherein the tissue replacement is harvested from mammalian cadaver.

Claim 14 (original) The method of claim 13, wherein the tissue replacement is cleaned of fat and blood after harvesting and rinsed for several hours in deionized distilled water.

Claim 15 (original) A native, cell-free tissue replacement made by the method of claim 1.

Claim 16 (original) A kit for tissue replacement comprising a sterile cell-free native tissue replacement of claim 15.

Claim 17 (original) The kit of claim 16, wherein the tissue replacement comprises a suture, tube, sheet, film, scaffold, valve, limb replacement, tissue transplant or a joint.

Claim 18 (original) The kit of claim 17, wherein the tissue replacement further comprises a cell, a polymer, a bioactive compound or combinations thereof.

Claim 19 (original) The kit of claim 17, further comprising a sheet of instructions for use of the tissue replacement.

Claim 20 (withdrawn) A native tissue replacement obtained by the method comprising the steps of: a cell-free tissue obtained from an organ of a mammal made by a process comprising: soaking the replacement tissue in one or more sulfobetaine solutions for at least about 6 hours; washing the tissue replacement in one or more solutions of a buffered salt to remove excess detergent; extracting the replacement tissue in a mixture of one or more solutions of Triton X-200/SB-16 for at least about 6 hours; and washing the tissue replacement in one or more solutions of the buffered salt to remove excess Triton X-200/SB-16.

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- Claim 21 (withdrawn) The tissue replacement of claim 20, wherein the tissue is selected from the group consisting of bone, cartilage, dermal, muscular, thyroidal, parathyroidal, lymphoid, pancreatic, urinary, digestive, hepatic, biliary, vascular, nervous, reproductive and combinations thereof.
- Claim 22 (withdrawn) The tissue replacement of claim 20, further comprising the step of adhering one or more components to the tissue replacement before storing.
- Claim 23 (withdrawn) The tissue replacement of claim 22, further comprising a component selected from the group consisting of a cell, a polymer, a bioactive compound or combinations thereof.
- Claim 24 (withdrawn) The tissue replacement of claim 20, further comprising one or more components adhered to the tissue replacement, wherein the components are selected from the group consisting of a cell, a polymer, a bioactive compound, and combinations thereof.
- Claim 25 (withdrawn) The tissue replacement of claim 20, wherein the tissue replacement is stored at low temperatures until use.
- Claim 26 (withdrawn) The tissue replacement of claim 20, wherein the tissue replacement is made by the method of claim 1.
- Claim 27 (withdrawn) The tissue replacement of claim 20, wherein the tissue replacement is delivered to the body in the form of a structure selected from the group consisting of suture, tube, sheet, film, scaffold, valve, limb replacement, tissue transplant, and joint.
- Claim 28 (withdrawn) The tissue replacement of claim 20, wherein the tissue replacement is further modified into a structure selected from the group consisting of suture, tube, sheet, film, scaffold, valve, and joint for delivery into the body.
- Claim 29 (withdrawn) The tissue replacement of claim 20, further comprising one or more cells placed in the gap between prior to acellular graft implantation.
- Claim 30 (withdrawn) The tissue replacement of claim 29, wherein the one or more cells comprise Schwann cells.
- Claim 31 (withdrawn) An optimized acellular graft that supports axonal regeneration, guides the axons toward the distal nerve end and is immunologically tolerated.
- Claim 32 (withdrawn) The acellular graft of claim 31, wherein the graft comprises a nerve graft.
- Claim 33 (withdrawn) The acellular graft of claim 31, further comprising the step of adhering one or more components to the graft before storing.

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Claim 34 (withdrawn) The acellular graft of claim 31, further comprising a component selected from the group consisting of a cell, a polymer, a bioactive compound or combinations thereof.

Claim 35 (withdrawn) The acellular graft of claim 31, wherein the graft is stored at about 4 degrees centigrade in a sterile, buffered solution until use.

Claim 36 (withdrawn) The acellular graft of claim 31, wherein the graft is made by the method of claim 1.

Claim 37 (withdrawn) The acellular graft of claim 31, wherein the graft is delivered to the body in the form of a structure selected from the group consisting of suture, tube, sheet, film, scaffold, valve, limb replacement, tissue transplant, and joint.

Claim 38 (withdrawn) The acellular graft of claim 31, wherein the graft is further modified into a structure selected from the group consisting of suture, tube, sheet, film, scaffold, valve, and joint for delivery into the body.

Claim 39 (withdrawn) The acellular graft of claim 31, further comprising one or more cells placed in the gap between prior to graft implantation.

Claim 40 (withdrawn) The acellular graft of claim 31, wherein the graft causes a reduced T-cell mediated immune response.